

distance, b , between the steering position and the seat position (as defined in FIG. 11). Further, Applicants propose to amend FIG. 3: (1) to redraw the windshield so that it does not interfere with the movement of the handlebars; and (2) to illustrate and label the location of toeholds 145. Also, Applicants propose to amend FIG. 14 to indicate that angle ϵ is measured from the vertical and not the horizontal, as shown. Applicants believe that these changes address each of the comments and objections set forth in paragraphs 1-2 of the Office Action.

Finally, Applicants propose to amend FIG. 1 to add the label "PRIOR ART." Applicants believe that the addition of this label to FIG. 1 addresses the Examiner's objection as set forth in paragraph #3 of the Office Action.

Applicants respectfully request that the submission of formal drawings await issue of the Notice of Allowance for this application.

IN THE SPECIFICATION:

Page 10, line 6, after "toeholds", insert --145--.

IN THE CLAIMS:

1. (Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

[at least one ski] two skis disposed on the frame;

a straddle-type seat disposed on the frame behind the engine, suitable for a standard rider with a center of gravity; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the [at least one ski] two skis for steering the snowmobile,

wherein the snowmobile has a first center of gravity without the rider and a second center of gravity with the rider, and

wherein a distance between a vertical line passing through the first center of gravity and a vertical line passing through the second center of gravity is between [about] 0 cm and 74 cm.

2. (Amended) The snowmobile of claim 1, wherein the distance is between [about] 2 and 12 cm.

3. (Amended) The snowmobile of claim 2, wherein the distance is between [about] 4 and 10 cm.

4. (Amended) The snowmobile of claim 3, wherein the distance is between [about] 5 and 7 cm.

5. (Amended) The snowmobile of claim 4, wherein the distance is [about] 5 cm.

6. (Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

[at least one ski] two skis disposed on the frame;

a straddle-type seat disposed on the frame behind the engine, suitable for a standard rider with a center of gravity; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the [at least one ski] two skis for steering the snowmobile,

wherein the snowmobile has a first center of gravity without the rider and a second center of gravity with the rider, and

wherein a line passing through the first center of gravity of the snowmobile and the second center of gravity forms an angle with horizontal that is between [about] 35 and 90°.

7. (Amended) The snowmobile of claim 6, wherein the angle is between [about] 50 and 90°.

8. (Amended) The snowmobile of claim 7, wherein the angle is between [about] 62 and 90°.

9. (Amended) The snowmobile of claim 8, wherein the angle is [about] 67°.

10. (Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

a forward-most drive track axle disposed on the frame;

[at least one ski] two skis disposed on the frame;

a straddle-type seat disposed on the frame behind the engine, suitable for a standard rider with a center of gravity;

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the [at least one ski] two skis for steering the snowmobile; and

wherein a distance between a vertical line passing through the forward-most drive track axle and a vertical line passing through the center of gravity of the rider is between [about] 15 and 65 cm.

11. (Amended) The snowmobile of claim 10, wherein the distance is between [about] 25 and 55 cm.

12. (Amended) The snowmobile of claim 11, wherein the distance is between [about] 35 and 55 cm.

13. (Amended) The snowmobile of claim 12, wherein the distance is between [about] 37 and 47 cm.

14. (Amended) The snowmobile of claim 13, wherein the distance is [about] 40 cm.

15. (Amended) The snowmobile of claim 14, wherein the distance is [about] 45 cm.

16. (Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

a forward-most drive track axle disposed on the frame;

[at least one ski] two skis disposed on the frame;

a straddle-type seat disposed on the frame behind the engine, suitable for a standard rider having a center of gravity;

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the [at least one ski] two skis for steering the snowmobile; and

wherein a line passing through the forward-most drive track axle and the center of gravity of the rider forms an angle with horizontal that is between [about] 41 and 75°.

17. (Amended) The snowmobile of claim 16, wherein the angle is between [about] 45 and 65°.

18. (Amended) The snowmobile of claim 17, wherein the angle is between [about] 50 and 60°.

19. (Amended) The snowmobile of claim 18, wherein the angle is [about] 55°.

20. (Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

[at least one ski] two skis disposed on the frame;

a straddle-type seat disposed on the frame behind the engine, suitable for a standard rider with a center of gravity; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the [at least one ski] two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity without the rider, and

wherein a distance between a vertical line passing through the center of gravity of the snowmobile without the rider and a vertical line passing through the center of gravity of the rider is between [about] 5 and 55 cm.

21. (Amended) The snowmobile of claim 20, wherein the distance is between [about] 15 and 45 cm.

22. (Amended) The snowmobile of claim 21, wherein the distance is between [about] 25 and 45 cm.

23. (Amended) The snowmobile of claim 22, wherein the distance is between [about] 27 and 37 cm.

24. (Amended) The snowmobile of claim 23, wherein the distance is [about] 30 cm.

25. (Amended) The snowmobile of claim 24, wherein the distance is [about] 35 cm.

26. (Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

[at least one ski] two skis disposed on the frame;

a straddle-type seat disposed on the frame behind the engine, suitable for a standard rider having a center of gravity; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the [at least one ski] two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity without the rider, and

wherein a line passing through the center of gravity of the snowmobile without the rider and the center of gravity of the rider forms an angle with horizontal that is between [about] 39 and 79°.

27. (Amended) The snowmobile of claim 26, wherein the angle is between [about] 49 and 69°.

28. (Amended) The snowmobile of claim 27, wherein the angle is between [about] 54 and 64°.

29. (Amended) The snowmobile of claim 28, wherein the angle is [about] 59°.

30. (Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

[at least one ski] two skis disposed on the frame;

a straddle-type seat disposed on the frame behind the engine, suitable for a standard rider with a center of gravity; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the [at least one ski] two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity with the rider, and

wherein a distance between a vertical line passing through the center of gravity of the snowmobile with the rider and a vertical line passing through the center of gravity of the rider is between [about] 0 and 50 cm.

31. (Amended) The snowmobile of claim 30, wherein the distance is between [about] 10 and 40 cm.

32. (Amended) The snowmobile of claim 31, wherein the distance is between [about] 20 and 40 cm.

33. (Amended) The snowmobile of claim 32, wherein the distance is between [about] 22 and 32 cm.

34. (Amended) The snowmobile of claim 33, wherein the distance is [about] 25 cm.

35. (Amended) The snowmobile of claim 34, wherein the distance is [about] 30 cm.

36. (Amended) A snowmobile, comprising:

a frame;

an engine disposed on the frame;

a drive track disposed below the frame and connected operatively to the engine for propulsion of the snowmobile;

[at least one ski] two skis disposed on the frame;

a straddle-type seat disposed on the frame behind the engine, suitable for a standard rider having a center of gravity; and

a steering device disposed on the frame forward of the seat, the steering device being operatively connected to the [at least one ski] two skis for steering the snowmobile,

wherein the snowmobile has a center of gravity with the rider, and

wherein a line passing through the center of gravity of the snowmobile with the rider and the center of gravity of the rider forms an angle with horizontal that is between [about] 35 and 84°.

37. (Amended) The snowmobile of claim 36, wherein the angle is between [about] 45 and 75°.

38. (Amended) The snowmobile of claim 37, wherein the angle is between [about] 55 and 70°.

39. (Amended) The snowmobile of claim 38, wherein the angle is [about] 57°.

40. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame forward of the seat;

two skis attached to the frame and operatively connected to the steering device

for steering the snowmobile; and

right and left footrests disposed below the seat on either side thereof, suitable for placement of the rider's feet thereon,

wherein the seat defines a seat position, the steering device defines a steering position, and the footrests define a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle β with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position,

and

B wherein angle α is between [about] 63 and 152°, angle β is between [about] 16 and 84°, and angle γ is between [about] 11 and 42°.

41. (Amended) The snowmobile of claim 40, wherein angle α is between [about] 67 and 112°, angle β is between [about] 41 and 72°, and angle γ is between [about] 22 and 45°.

42. (Amended) The snowmobile of claim 41, wherein angle α is between [about] 75 and 97°, angle β is between [about] 52 and 67°, and angle γ is between [about] 30 and 41°.

43. (Amended) The snowmobile of claim 42, wherein angle α is [about] 83°, angle β is [about] 64°, and angle γ is [about] 33°.

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44. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame forward of the seat;

two skis attached to the frame and operatively connected to the steering device for steering the snowmobile; and

right and left footrests disposed below the seat on either side thereof, suitable for placement of the rider's feet thereon;

wherein the seat defines a seat position, the steering device defines a steering position, and the footrests define a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle β with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position,

and

wherein angle α , angle β , and angle γ satisfy the relationship $\alpha \geq \beta \geq \gamma$.

45. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame forward of the seat;

two skis attached to the frame and operatively connected to the steering device

for steering the snowmobile; and

right and left footrests disposed below the seat on either side thereof, suitable for placement of the rider's feet thereon;

wherein the seat defines a seat position, the steering device defines a steering position, and the footrests define a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle β with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position, and

wherein angle α , angle β , and satisfy the relationship $\alpha \approx 2.5\gamma$.

46. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider; [and]

an engine disposed on the frame in front of the seat;

a steering device disposed on the frame forward of the seat; and

two skis attached to the frame and operatively connected to the steering device for steering the snowmobile;

wherein the seat defines a seat position and the steering device defines a steering position, and

wherein a line passing through the steering position and the seat position forms an angle ϕ with horizontal that is between [about] 15 and 51°.

47. (Amended) The snowmobile of claim 46, wherein angle ϕ is between [about] 19 and 41°.

48. (Amended) The snowmobile of claim 47, wherein angle ϕ is between [about] 23 and 31°.

49. (Amended) The snowmobile of claim 48, wherein angle ϕ is [about] 26°.

50. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

[at least one ski] two skis disposed on the frame; and

a steering shaft operatively connected to the [at least one ski] two skis for steering the snowmobile, the steering shaft being disposed over the engine at an angle ϵ of less than [about] 45° from vertical.

51. (Amended) The snowmobile of claim 50, wherein angle ϵ is between [about] 25 and 40° from vertical.

52. (Amended) The snowmobile of claim 51, wherein angle ϵ is between [about] 30 and 35° from vertical.

al 53. (Amended) The snowmobile of claim 52, wherein angle ϵ is [about] 33° from vertical.

54. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider, the seat defining a location of a rider space associated with the seat;

an engine disposed on the frame in front of the seat;

a steering shaft disposed on the frame forward of the seat;

two skis attached to the frame and operatively connected to the steering shaft for steering the snowmobile; and

a handlebar mounted onto the steering shaft,

wherein the handlebar and steering shaft are rotatable about a central axis between first and second positions to define a handlebar space, and

wherein the handlebar space does not intersect with the rider space.

55. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

a steering device disposed forward of the seat;

two skis attached to the frame and operatively connected to the steering shaft for steering the snowmobile; and

a windshield disposed forward of the steering device, the windshield having a top;

wherein the seat defines a seat position and the steering device defines a steering position, and

wherein a line between the steering position and the seat position forms an angle μ with a line between the seat position and the top of the windshield that lies between [about] 0 and 20°.

56. (Amended) The snowmobile of claim 55, wherein angle μ is between [about] 10 and 20°.

13 57. (Amended) The snowmobile of claim 56, wherein angle μ is [about] 18°.

58. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

a steering device disposed forward of the seat;

two skis attached to the frame and operatively connected to the steering device for steering the snowmobile; and

a windshield disposed forward of the seat, the windshield having a top;

wherein, when in motion, the windshield defines a laminar flow region of moving air that extends upwardly and rearwardly from the top thereof, and

wherein, when seated in the seat and when grasping the steering device, the rider's head is positioned within the laminar flow region.

59. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

two skis attached to the frame;

a forward-most drive track axle disposed on the frame; and

a steering device disposed on the frame forward of the forward-most drive track axle, the steering device being operatively connected to the two skis for steering the snowmobile.

60. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

two skis attached to the frame; and

a steering device disposed on the frame and operatively connected to the two skis for steering the snowmobile;

wherein the snowmobile has a center of gravity without a rider and the steering device is disposed on the frame forward of the center of gravity.

61. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

two skis attached to the frame; and

a steering device disposed on the frame and operatively connected to the two skis for steering the snowmobile;

wherein the snowmobile has a center of gravity with a rider and the steering device is disposed on the frame forward of the center of gravity.

62. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

two skis attached to the frame; and

right and left footrests disposed below the seat on either side thereof, suitable for placement of the rider's feet thereon; and

a steering device, disposed forward of the footrests and operatively connected to the two skis for steering the snowmobile.

63. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

two skis attached to the frame;

right and left sideboards extending laterally from the frame below the seat on either side thereof, each of the sideboards having a forward portion suitable for placement of the rider's feet thereon;

al right and left toe-holds disposed respectively above the forward portion of each sideboard for allowing the rider to releasably secure himself to the snowmobile;

a steering device disposed forward of the forward portions of the sideboards and operatively connected to the two skis for steering the snowmobile.

64. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider,

defining a seat position;

an engine disposed on the frame in front of the seat;

two skis attached to the frame; and

a steering device disposed on the frame and forward of the seat defining a steering position, the steering device being operatively connected to the two skis for steering the snowmobile,

wherein a distance between vertical lines passing through the steering position and the seat position is between [about] 40 and 90 cm.

65. (Amended) The snowmobile of claim 64, wherein the distance is between [about] 50 and 80 cm.

66. (Amended) The snowmobile of claim 65, wherein the distance is between [about] 60 and 80 cm.

a1 67. (Amended) The snowmobile of claim 66, wherein the distance is [about] 65 cm.

68. (Amended) The snowmobile of claim 67, wherein the distance is [about] 70 cm.

69. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

two skis attached to the frame;

a steering device disposed on the frame and operatively connected to the two skis for steering the snowmobile; and

right and left footrests disposed below the seat on either side thereof, suitable for placement of the rider's feet thereon, the footrests disposed at an angle Δ with horizontal that is between [about] +10 and -20°.

70. (Amended) The snowmobile of claim 69, wherein angle Δ is between [about] +10 and -10°.

71. (Amended) The snowmobile of claim 70, wherein angle Δ is between [about] 0 and -5°.

72. (Amended) The snowmobile of claim 71, wherein angle Δ is [about] -5°.

a) 73. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

two skis attached to the frame;

a steering device disposed on the frame and operatively connected to the two skis for steering the snowmobile; and

right and left sideboards extending laterally from the frame below the seat on either side thereof, each of the sideboards having a forward portion suitable for placement of a rider's foot thereon, the forward portion of each sideboard disposed at an angle Δ with horizontal that is between [about] +10 and -20°; and

right and left toe-holds disposed respectively above the forward portion of each sideboard for allowing the rider to releasably secure himself to the snowmobile.

74. (Amended) The snowmobile of claim 73, wherein angle Δ is between [about] +10 and -10°.

75. (Amended) The snowmobile of claim 74, wherein angle Δ is between [about] 0 and -5°.

76. (Amended) The snowmobile of claim 73, wherein angle Δ is [about] -5°.

77. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

two skis attached to the frame;

a steering device disposed on the frame forward of the seat and operatively connected to the two skis for steering the snowmobile; and

right and left sideboards extending laterally from the frame below the seat on either side thereof, each of the sideboards having a forward portion suitable for placement of a rider's foot thereon,

wherein the seat defines a seat position, the steering device defines a steering position, and the forward portions of the sideboards define a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle β with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position, and

wherein angle α is between [about] 63 and 152°, angle β is between [about] 16 and 84°, and angle γ is between [about] 11 and 42°.

78. (Amended) The snowmobile of claim 77, wherein angle α is between [about] 67 and 112°, angle β is between [about] 41 and 72°, and angle γ is between [about] 22 and 45°.

ai 79. (Amended) The snowmobile of claim 78, wherein angle α is between [about] 75 and 97°, angle β is between [about] 52 and 67°, and angle γ is between [about] 30 and 41°.

80. (Amended) The snowmobile of claim 79, wherein angle α is [about] 83°, angle β is [about] 64°, and angle γ is [about] 33°.

81. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

two skis attached to the frame;

a steering device disposed on the frame forward of the seat and operatively connected to the two skis for steering the snowmobile; and

right and left sideboards extending laterally from the frame below the seat on either side thereof, each of the sideboards having a forward portion suitable for placement of a rider's foot thereon,

wherein the seat defines a seat position, the steering device defines a steering position, and the forward portions of the sideboards define a footrest position,

wherein a line passing through the seat position and the steering position forms angle α with a line passing through the seat position and the footrest position;

wherein a line passing through the footrest position and the steering position forms angle β with the line passing through the footrest position and the seat position,

wherein the line passing through the footrest position and the steering position forms angle γ with the line passing through the steering position and the seat position, and

wherein angle α , angle β , and angle γ satisfy the relationship $\alpha \geq \beta \geq \gamma$.

82. (Amended) A snowmobile, comprising:

a frame;

a straddle-type seat disposed on the frame, suitable for a standard rider;

an engine disposed on the frame in front of the seat;

two skis attached to the frame;

a steering device disposed on the frame forward of the seat and operatively connected to the two skis for steering the snowmobile; and

right and left sideboards extending laterally from the frame below the seat on either side thereof, each of the sideboards having a forward portion suitable for placement of a rider's foot thereon,